

LC1D80AB7

IEC contactor, TeSys Deca, nonreversing, 80A, 40HP at 480VAC, 3 phase, 3 pole, 3 NO, 24VAC 50/60Hz coil, open style



Main

Range	TeSys TeSys Deca
Range of Product	TeSys Deca
Product or Component Type	Contactors
Device short name	LC1D
Contactors application	Motor control Resistive load
Utilisation category	AC-1 AC-4 AC-3 AC-3e
Poles description	3P
[Ue] rated operational voltage	Power circuit 690 V AC 25...400 Hz Power circuit 300 V DC
[Ie] rated operational current	80 A 140 °F (60 °C) <= 440 V AC-1 power circuit 66 A 140 °F (60 °C) <= 440 V AC-3 power circuit 66 A 140 °F (60 °C) <= 440 V AC-3e power circuit
[Uc] control circuit voltage	24 V AC 50/60 Hz

Complementary

Motor power kW	18.5 KW 220...230 V AC 50 Hz AC-3) 37 KW 380...400 V AC 50 Hz AC-3) 37 KW 415 V AC 50 Hz AC-3) 37 KW 440 V AC 50 Hz AC-3) 37 KW 500 V AC 50 Hz AC-3) 37 KW 660...690 V AC 50 Hz AC-3)
Maximum Horse Power Rating	5 Hp 115 V at AC 60 Hz for 1 phase 10 Hp 230/240 V at AC 60 Hz for 1 phase 20 Hp 200/208 V at AC 60 Hz for 3 phase 20 Hp 230/240 V at AC 60 Hz for 3 phase 40 Hp 460/480 V at AC 60 Hz for 3 phase 50 hp 575/600 V at AC 60 Hz for 3 phase
Compatibility code	LC1D
Pole contact composition	3 NO
Contact compatibility	M2
Protective cover	With
[Ith] conventional free air thermal current	10 A 140 °F (60 °C) signalling circuit 80 A 140 °F (60 °C) power circuit
Irms rated making capacity	140 A AC signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 1000 A 440 V AC power circuit IEC 60947
Rated breaking capacity	1000 A 440 V power circuit IEC 60947
[Icw] rated short-time withstand current	520 A 104 °F (40 °C) - 10 s power circuit 900 A 104 °F (40 °C) - 1 s power circuit 110 A 104 °F (40 °C) - 10 min power circuit 260 A 104 °F (40 °C) - 1 min power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit
Associated fuse rating	10 A gG signalling circuit IEC 60947-5-1 125 A gG <= 690 V type 1 power circuit 125 A gG <= 690 V type 2 power circuit

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Average impedance	1.5 mOhm - lth 80 A 50 Hz power circuit
Power dissipation per pole	9.6 W AC-1 6.5 W AC-3 6.5 W AC-3e
[Ui] rated insulation voltage	Signalling circuit 690 V IEC 60947-1 Power circuit 690 V IEC 60947-4-1
Overvoltage category	III
Pollution degree	3
[Uimp] rated impulse withstand voltage	6 kV IEC 60947
Safety reliability level	B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1
Mechanical durability	6 Mcycles
Electrical durability	0.7 Mcycles 80 A AC-1 ≤ 440 V 1 Mcycles 66 A AC-3 ≤ 440 V 1 Mcycles 66 A AC-3e ≤ 440 V
Control circuit type	AC 50/60 Hz standard
Coil technology	Without built-in suppressor module
Control circuit voltage limits	0.3...0.6 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz 0.8...1.1 Uc -40...140 °F (-40...60 °C) operational AC 50 Hz 0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC 60 Hz 1...1.1 Uc 140...158 °F (60...70 °C) operational AC 50/60 Hz
Inrush power in VA	140 VA 60 Hz 0.75 68 °F (20 °C)) 160 VA 50 Hz 0.75 68 °F (20 °C))
Hold-in power consumption in VA	13 VA 60 Hz 0.3 68 °F (20 °C)) 15 VA 50 Hz 0.3 68 °F (20 °C))
Heat dissipation	4...5 W 50/60 Hz
Operating time	4...19 ms opening 12...26 ms closing
Maximum operating rate	3600 cyc/h 140 °F (60 °C)
Connections - terminals	Control circuit screw clamp terminals 2 0.00...0.00 in ² (1...2.5 mm ²) flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) flexible with cable end Power circuit EverLink BTR screw connectors 1 0.00...0.05 in ² (1...35 mm ²) flexible with cable end Power circuit EverLink BTR screw connectors 2 0.00...0.04 in ² (1...25 mm ²) flexible with cable end Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) solid Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) solid Power circuit EverLink BTR screw connectors 1 0.00...0.05 in ² (1...35 mm ²) solid Power circuit EverLink BTR screw connectors 2 0.00...0.04 in ² (1...25 mm ²) solid Control circuit screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) flexible Control circuit screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) flexible Power circuit EverLink BTR screw connectors 1 0.00...0.05 in ² (1...35 mm ²) flexible Power circuit EverLink BTR screw connectors 2 0.00...0.04 in ² (1...25 mm ²) flexible
Tightening torque	Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in ² (25...35 mm ²) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in ² (1...25 mm ²) hexagonal 0.16 in (4 mm) Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2 Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals pozidriv No 2
Auxiliary contact composition	1 NO + 1 NC
Auxiliary contacts type	Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1
Signalling circuit frequency	25...400 Hz
Minimum switching voltage	17 V signalling circuit
Minimum switching current	5 mA signalling circuit
Insulation resistance	> 10 MOhm signalling circuit
Non-overlap time	1.5 Ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact
Mounting Support	Plate Rail

Environment

Standards	EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1
Product Certifications	CCC CSA EAC UL KC DNV-GL LROS (Lloyds register of shipping)
IP degree of protection	IP20 front face IEC 60529
Protective treatment	THIEC 60068-2-30
Climatic withstand	IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat
Permissible ambient air temperature around the device	-40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating
Operating altitude	0...9842.52 ft (0...3000 m)
Fire resistance	1562 °F (850 °C) IEC 60695-2-1
Flame retardance	V1 conforming to UL 94
Mechanical robustness	Vibrations contactor open 2 Gn, 5...300 Hz) Vibrations contactor closed 4 Gn, 5...300 Hz) Shocks contactor closed 15 Gn for 11 ms) Shocks contactor open 10 Gn for 11 ms)
Height	4.80 in (122 mm)
Width	2.17 in (55 mm)
Depth	4.72 in (120 mm)
Product Weight	1.90 lb(US) (0.86 kg)

Ordering and shipping details

Category	22357-CTR, TESYS D, OPEN, 40-65A AC
Discount Schedule	I12
GTIN	3606481312112
Returnability	No

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.44 in (6.2 cm)
Package 1 Width	5.31 in (13.5 cm)
Package 1 Length	6.10 in (15.5 cm)
Package 1 Weight	32.52 oz (922 g)
Unit Type of Package 2	S02
Number of Units in Package 2	10
Package 2 Height	5.91 in (15 cm)
Package 2 Width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Package 2 Weight	21.69 lb(US) (9.838 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
RECh Regulation	 RECh Declaration
RECh free of SVHC	Yes
EU RoHS Directive	Compliant  EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes

China RoHS Regulation	 China RoHS Declaration
RoHS exemption information	 Yes
Environmental Disclosure	 Product Environmental Profile
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

Contractual warranty

Warranty	18 months
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